Colorectal Surgery
Ostomy Basics

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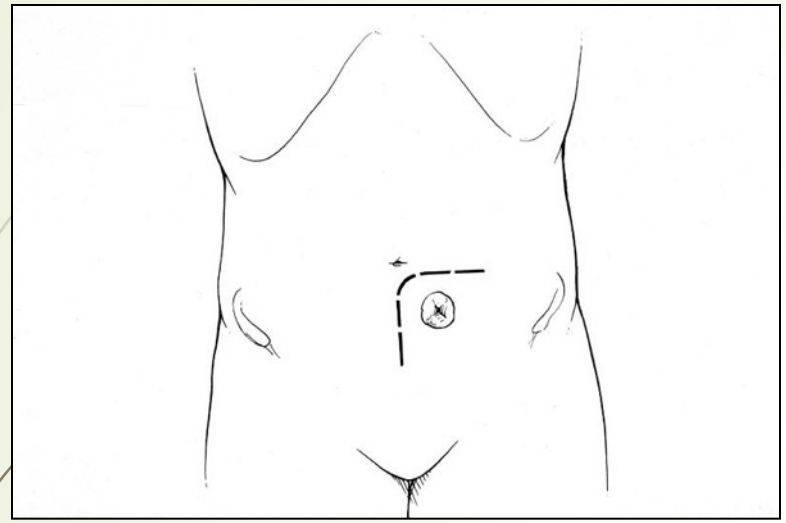
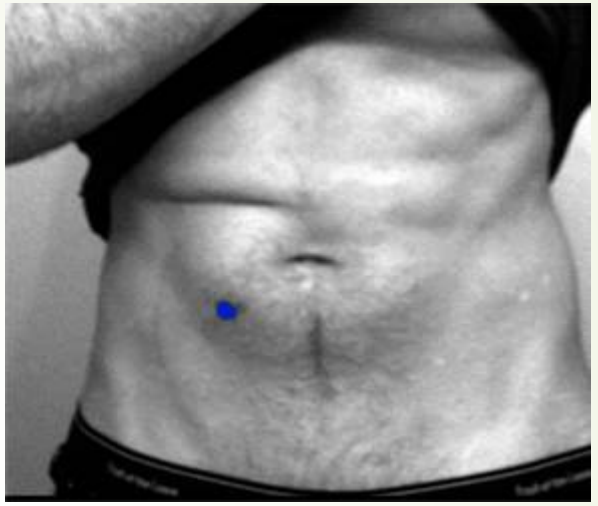
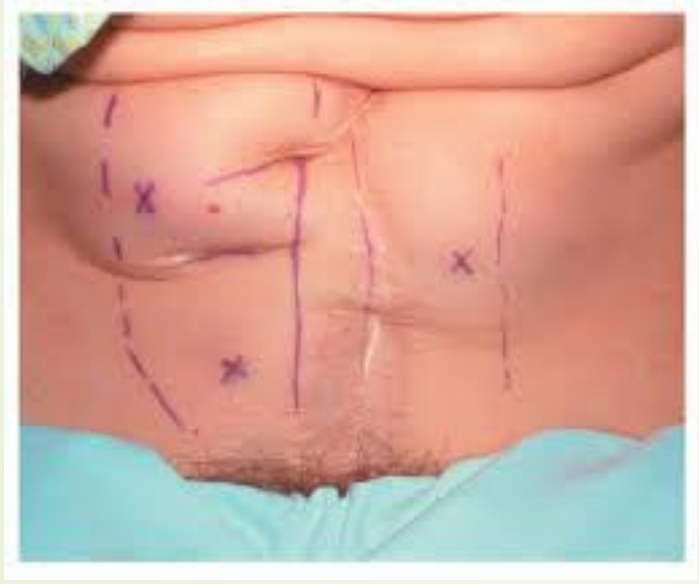
Why mark a stoma pre-op?

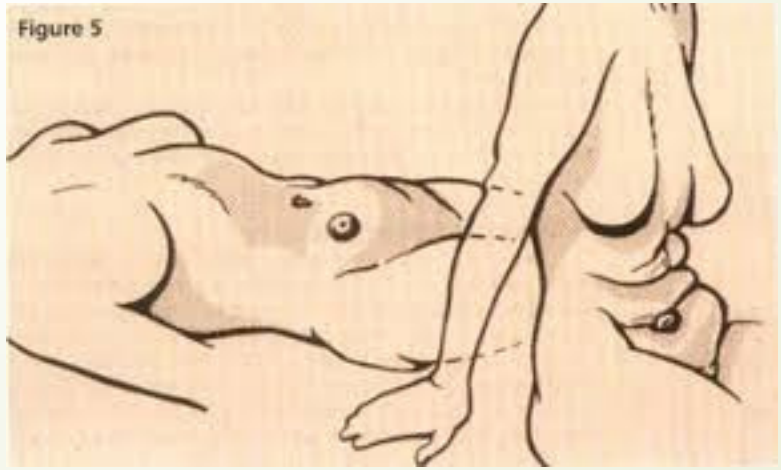
- Shown to be one of the best ways to improve quality of life with a stoma.
- Makes an enormous difference in reducing risk of leaks and skin breakdown
- Good chance to do education prior to surgery
- Read more here:
  - https://www.ostomy.org/wp-content/uploads/2018/01/wocn_ascrs_stoma_site_marking_fecal_2014.pdf

How to Mark a Site for a Stoma









- Ask: what is the patient having?
  - Ileostomy (Right side), colostomy (left side)
  - Temporary? Easier to mark if the abdomen is challenging.
  - Permanent? Take your time, talk to patient about pros and cons

- Ask patient to wear favorite pants to see where they wear their waistline

- LOOK at the belly, how does it wrinkle, crease. Are there scars? Radiation?
  - Have them stand, sit and lie flat while you look at belly
  - Mark at the Lateral Edge of Rectus, about 5-6 cm from umbilicus
  - Need 2-3 inches of flat surface, might be higher up!

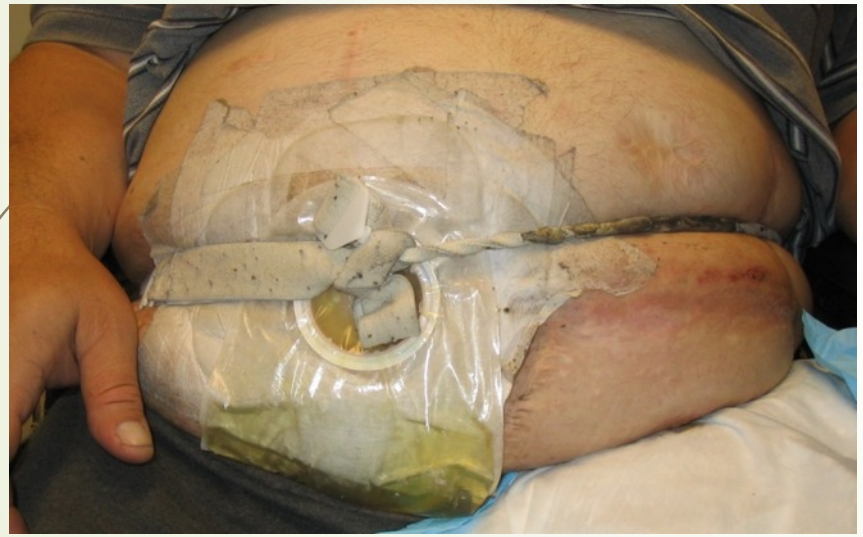
- Marking must be visible to the patient, again might be higher up!

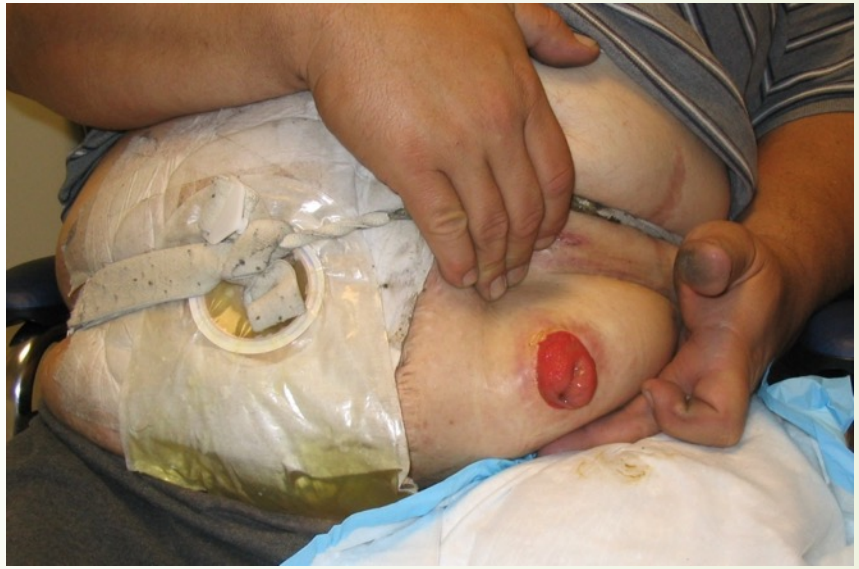
Stay away from folds and creases in the abdomen
Mark above or below depending on the patient
Stay away from belt line! Try to get above or below the belt line

Marking tips continued

- Place the marking with any sharpie or marking pen and cover with tegaderm or tape
- TRY TO PUT BELOW THE BELT LINE. It is better for patients and better for quality of life. BUT, be thoughtful. If it doesn't work, it doesn't work.
- Look at the width of the abdominal wall as well, not just the folds. If the lower abdomen is very thick, the stoma will likely retract. So put it higher if that is the case.
- Ask for help if you are not sure

Placement Issue





Discuss options for stoma especially if above belt line:

- Stomasafe
- Stealth Belt
- Activity Belt
- Tube tops
- Suspenders

TROUBLESHOOTING Ostomy Bag Leaks

Types of Stomas

- End ileostomy: usually pretty easy to pouch. Most patients like a flat, one piece drainable and change once a week

- Loop ileostomy: most challenging to pouch because of the efferent loop that pulls the os inferior, lots of issues with leakage if not made well. Almost always uses a two piece, convex bag with a belt

- Colostomy: lots of options to make this work. Most patients will end up in a two piece, flat closed end system with a COLOMAJIC flushable liner. Or they will do irrigation.

Leaking Basics
Change the bag

Leaks are caused by one thing: the wrong bag. Change the bag = fix the leak

- Leaking is very common. It can be extreme with unexpected accidents. It can be annoying with burning and smell only. It can be subtle with only skin breakdown noticed when changing the bag.
- Bottom line: **leaking should not be tolerated**. It will ruin the skin. It will ruin the patient's life. Do not give up on the patient. Keep trying
- The job of any stoma expert is to know the brands, bags and appliances that work for the kind of problem the patient is having
- Rings, paste, nystatin, stoma powder, skin shields: all of this is to bridge a bad bag. Try to change the bag first and then add these on if it is not working

Remember: change the bag.

- The answer for skin breakdown is NOT medicine or powder
  - Do not rely on crusting and nystatin to take care of the skin. It is a stop gap measure only
- BASIC RULES FOR LEAKS:
  - CONVEX + BELT: This is the absolute basic approach to leaks. If someone shows up with skin breakdown, do this first
  - YES! They MUST WEAR THE BELT
  - Start with light convex options (coloplast and convatek have options)
  - Move up to deep convex (again coloplast and convatek have options)
  - If still not working consider Nu-Hope or other unusual options

Basic Interventions for Leaks

- Remove the bag and evaluate the affected skin
  - ***Red/macerated around the edge of the stoma only?*** Measure the stoma again and make sure that they are cutting to the right size. Add a ring to the base of the stoma and make sure they are putting it ON THE SKIN and not on the bag
  - ***Red/scaly/irritated along the tape edge?*** You can bet they are in the Hollister bag and reacting to the tape, so change the bag to another brand.
  - ***Irregular redness at the base of stoma extending out under flange too?*** Now you have a problem. This is a real leak and you need to work with them to change the bag and upgrade their appliance. Make sure they are wearing the belt!
- Yes, treat the skin with crusting!
  - If the skin is red and messy, crust! Use the stoma powder and skin prep to help. But do not rely on this to treat the underlying issue
  - If the skin is flaky and scaly, treat with Nystatin, but again do not over-rely on medicine to treat the skin! This is a stop gap measure only

Treating leaks: A step wise approach

- What follows is a step-wise approach to treating leaks.
- This comes from personal experience only. You will learn what works best for you and your patients.
- Remember: a good stoma nurse knows the bags and brands. You should be able, over time, to look at an abdomen and know what bag will work
- Try things out and learn from your patients

OSTOMY BAG LEAKS

Step 1

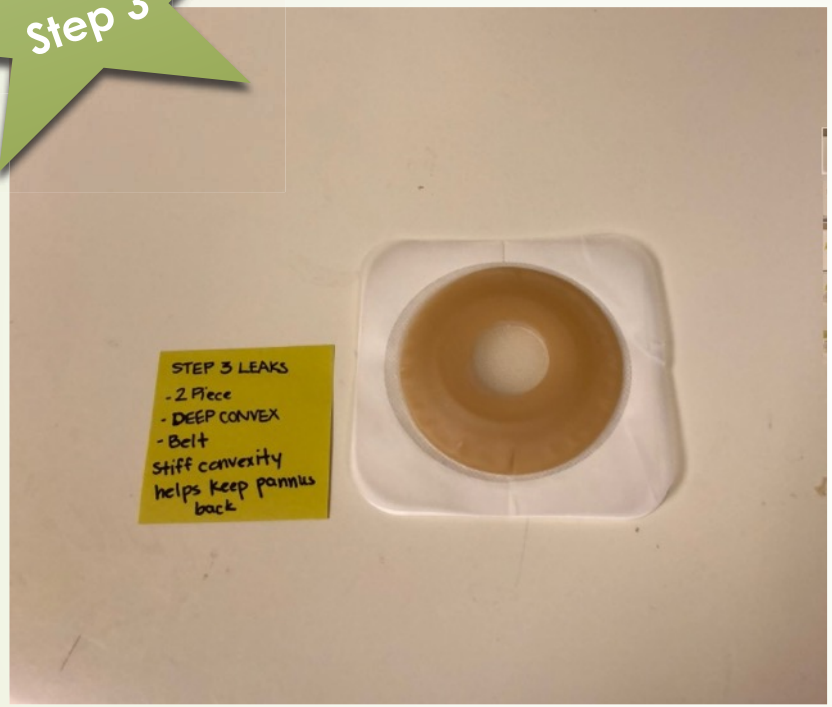
- 2 Piece Convex Coloplast bag
- Belt

Step 2

- Flex Esteem Convatec bag
- Belt
- Great for bad skin, big belly, & leaks
  **least allergic, sensitive wax back, flexible, good for leaks*

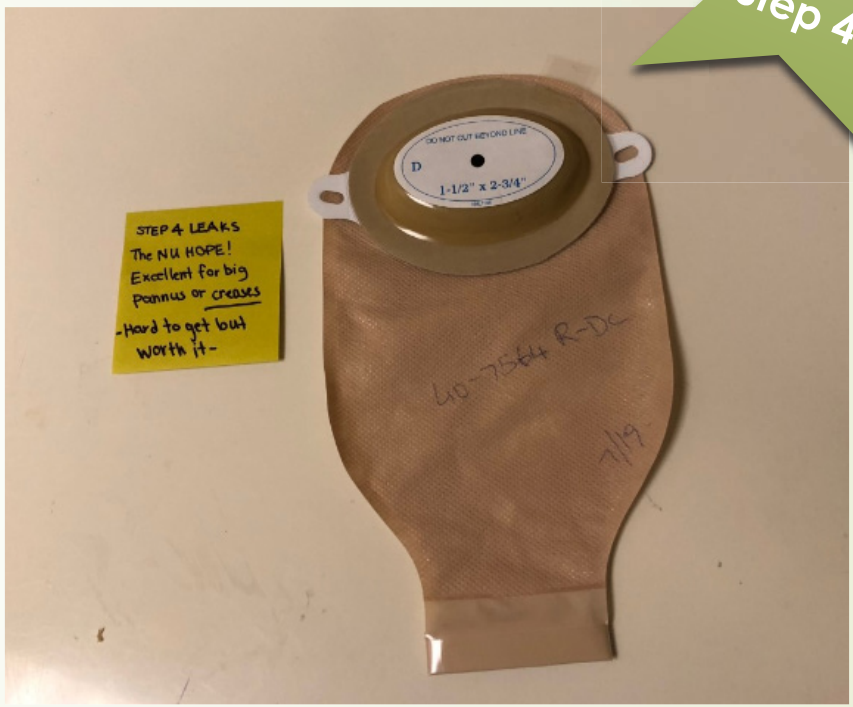
OSTOMY BAG LEAKS

Step 3



- 2 Piece DEEP Convex bag
- Belt
  **stiff convexity helps keep pannus back*

Step 4



- NU HOPE bag
- Belt
  ** EXCELLENT for BIG pannus or Creases*
  ** Hard to get but worth it*

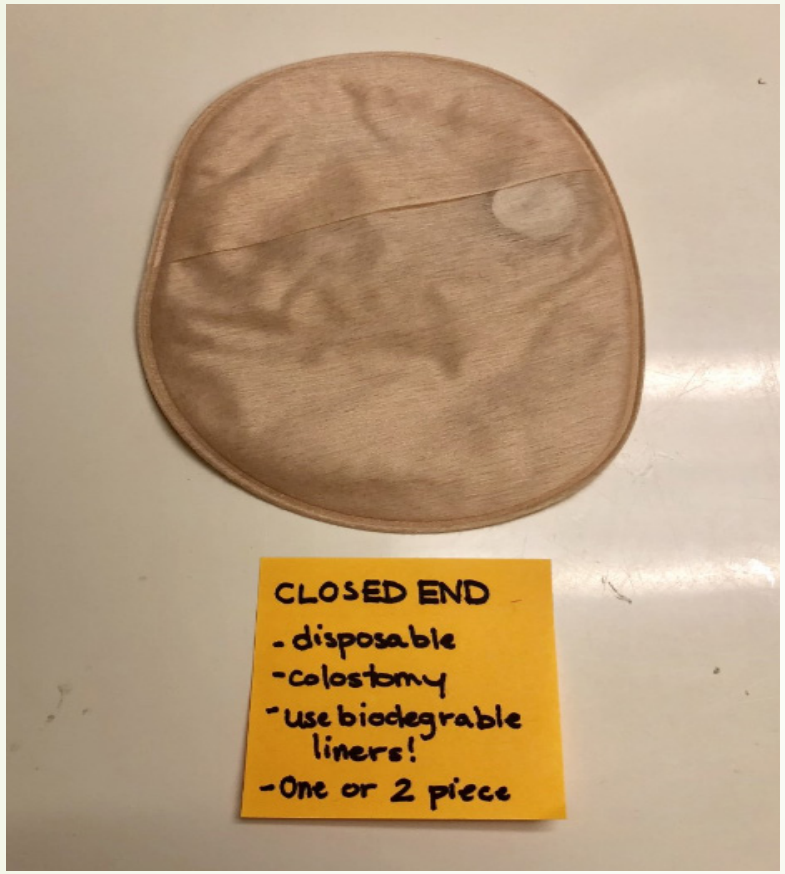
Final work on leaks

	Coloplast	Hollister	Convatek	Nu-Hope
Flat abdomen, no leakage	Sensura mio flat drainable great option. Perfect for an ileostomy	??? Get them out of Hollister unless they love the bag	Two piece moldable Consider accordian flange Consider one piece moldable	Not needed
Flat abdomen, leakage	Sensura mio, two piece, LIGHT convex, belt	??? You can try convex two piece if you want too	Moldable two piece with belt, LIGHT convex	Not needed
Abdominal folds, no leakage	Sensura mio, two piece, light or deep convex, belt, ring	Flexible convex one piece drainable	Flex esteem convex drainable (used to be stomacur brand but convatek bought them out)	Not needed
Abdominal folds, leakage				Oval, deep convex with a belt
Abdominal folds, lots of loose, soft tissue that is easily pushed back		Hollister two piece convex	Moldable, deep convex flange This is a hard flange that can push back the extra skin. The moldable opening is great too for turtlenecking stomas. Consider the accordion flange too that is easier to snap the bag onto	
Abdominal folds, leakage, abdomen with harder adipose tissue not easily reduced	Flexible two piece sensura mio deep convex with ring and belt	None	Flex esteem	Oval, deep convex Best bet for this kind of abdomen an leakage

Ostomy Accessories

- **Crusting:** stoma powder and no-sting barrier wipe x 3, watch this on Youtube if you aren't sure how to do it. Do this with any broken down skin
- **No Sting Barrier wipes:** Some people just like to use these. If they don't need crusting, they don't really need to use this, but whatever they prefer.
- **Rings:** I use rings all the time. I like them because they give a real seal to the stoma and bag. I never put the rings on the bag. I always clean the skin or crust, then split the ring in half and place DIRECTLY on the skin at the base of the stoma. You will get a better seal this way. Then put the flange directly on top and then heat this up.
- **Paste:** paste is messy and hard to clean. I only use it when I am desperate. I like putting the ring on the skin and the paste on the flange when someone is really leaking a lot. I generally never use this though unless I am failing with all other interventions
- **Barrier strips:** Place these on the outside of the flange for extra protection or if someone is trying to extend the life of the flange
- **Odor Eliminators:**
  - Na'scent: works great, 5 drops with each emptying of the bag, pretty great, patients call for samples and then it is covered by insurance usually
  - M9 drops: kind of +/-. Not sure this really works well
  - Adapt lubricating deodorant: also +/-. Not convinced this does much
  - Devrom: pills that help reduce odor, I have heard good things
  - Oral chlorophyll: some ostomates really feel this helps eliminate odors

COLOSTOMY
Give them options: irrigation or disposable liners



- Close End Bag
- Disposable
- Use biodegradable liners (Colo-Majic bag)
- 1 or 2 piece

Give a colostomy OPTIONS

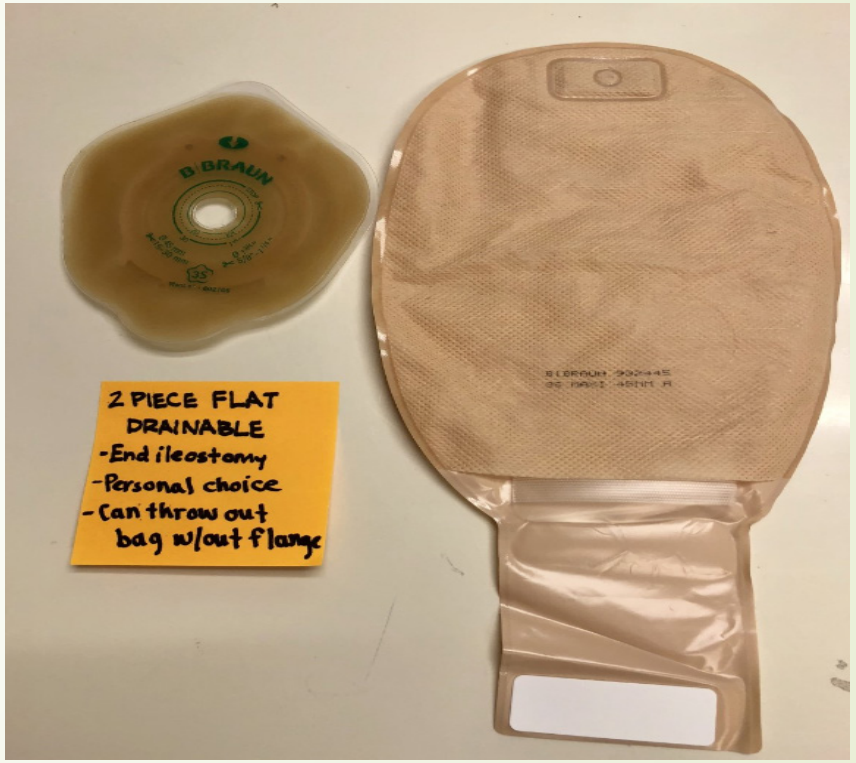
- **Irrigation:** this is a game changer for patients. Make sure all people with colostomies know about irrigation. There is a smartphrase ".ccsirrigation" that explains it. YouTube has tons of great videos.
  - This is basically a water enema into the colostomy and colon
  - Done Q24-48 hours depending on motility
  - Control over stool and great reduction in gas
  - Improves quality of life immensely for patients

- **Disposable liners**: these are awesome too! Check out .ccsdisposableliners smartphrase to read more. Look this up online too.
  - Liner used with two piece, closed-end bag
  - Can be thrown directly into toilet and flushed
  - Great for busy lifestyles

ILEOSTOMY

END Ileostomy

- One Piece FLAT drainable
- Clear or Opaque
- FLAT/Low Profile



- 2 Piece Flat Drainable
- Personal choice
- Can throw out bag w/o flange

END Ileostomy

- One Piece Convex
- LEAKING end ileostomies
- Preference

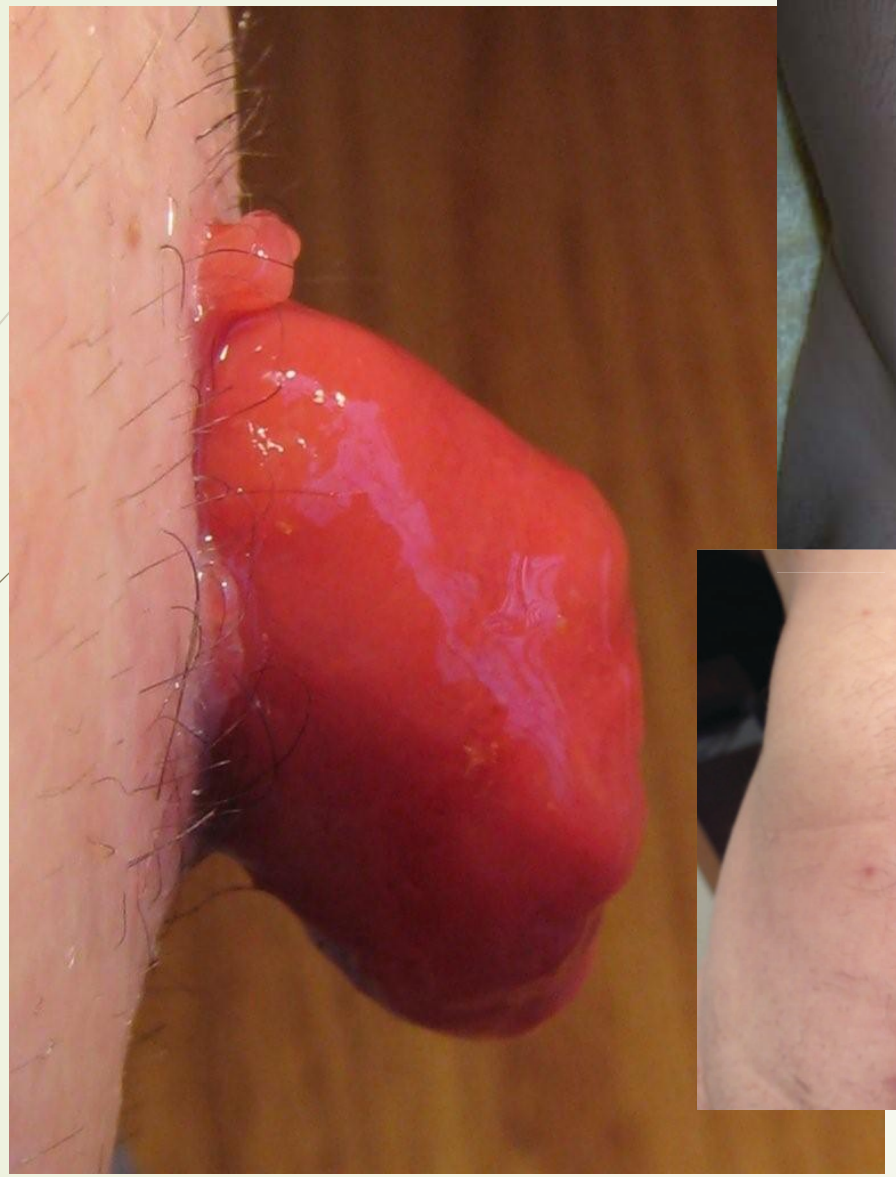
LOOP Ileostomy

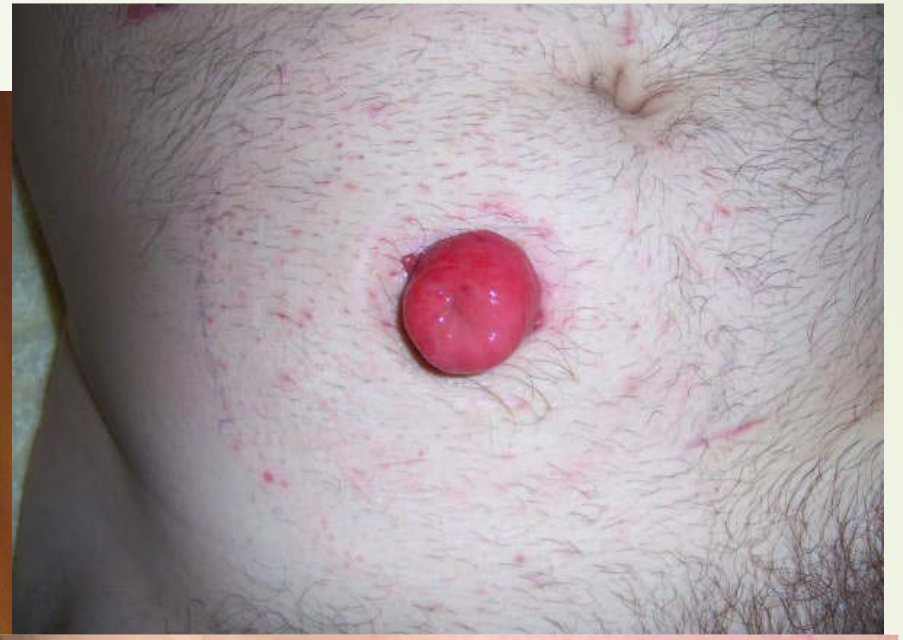
- One Piece FLAT drainable
- Clear or Opaque
- FLAT/Low Profile

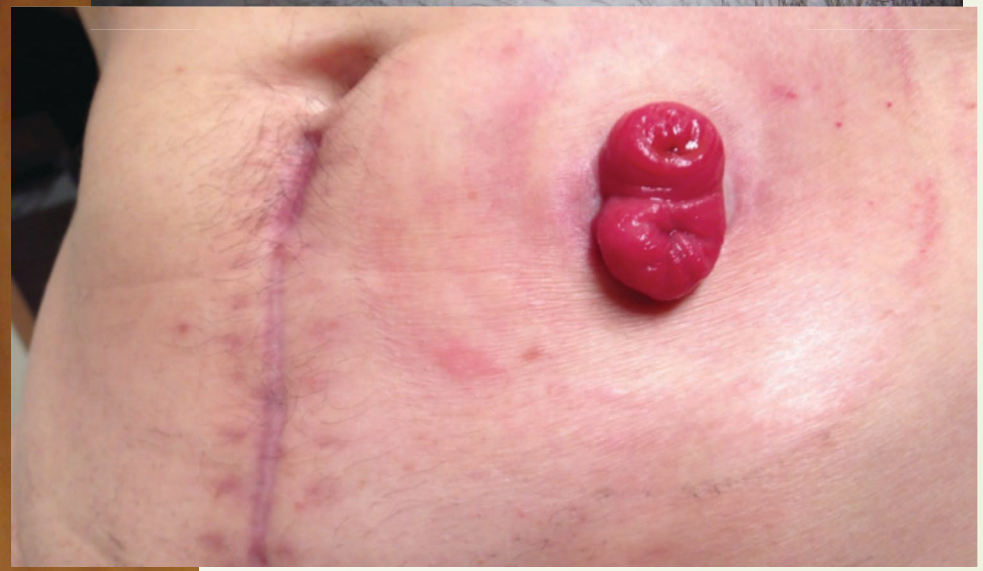
High Output Ileostomy

- Short gut
- 2 piece only

Common Stoma Problems







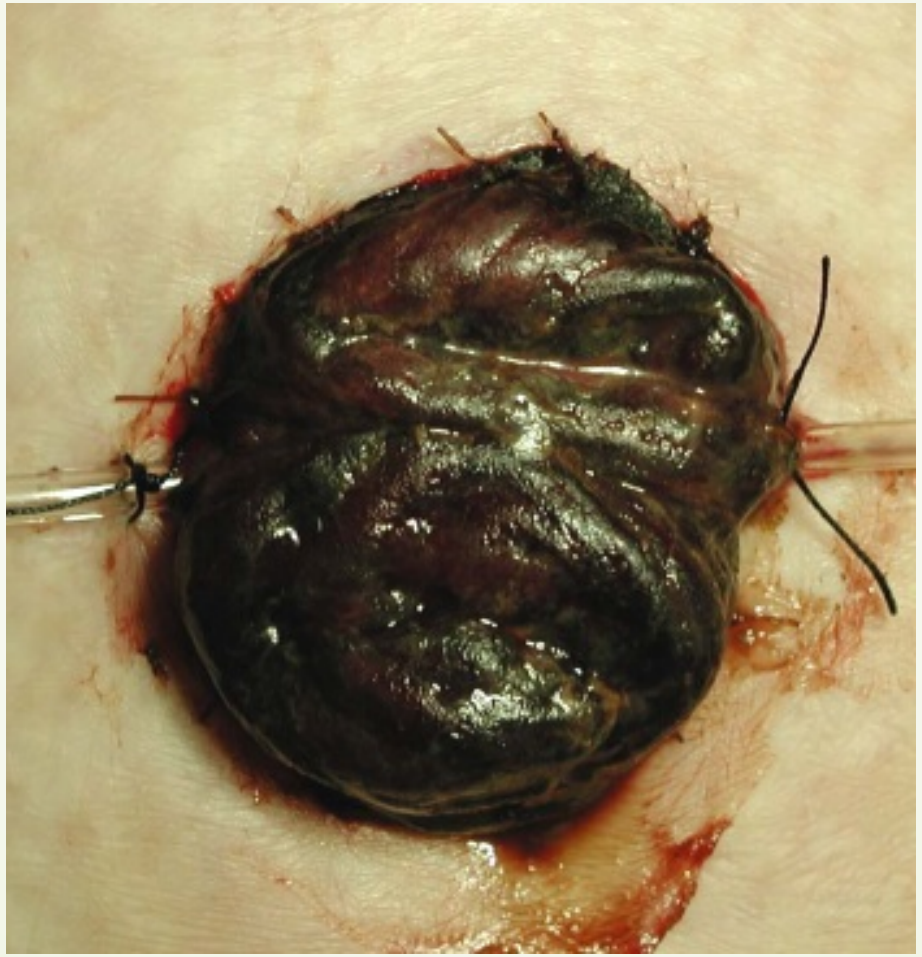
Complications of Stomas

- High rate of complications
- 40-70% incidence over 15 yr. follow up
- Most occur in the first five years
- Attention to stoma formation is the most important factor in prevention

Stoma Complications

- Ischemia/Necrosis
- Retraction
- Stricture
- Skin Irritation/Applicance leakage
- Mucocutaneous separation/Abscess/fistula
- Hernias
- Prolapse
- Pyoderma Gangrenosum
- Granulomas

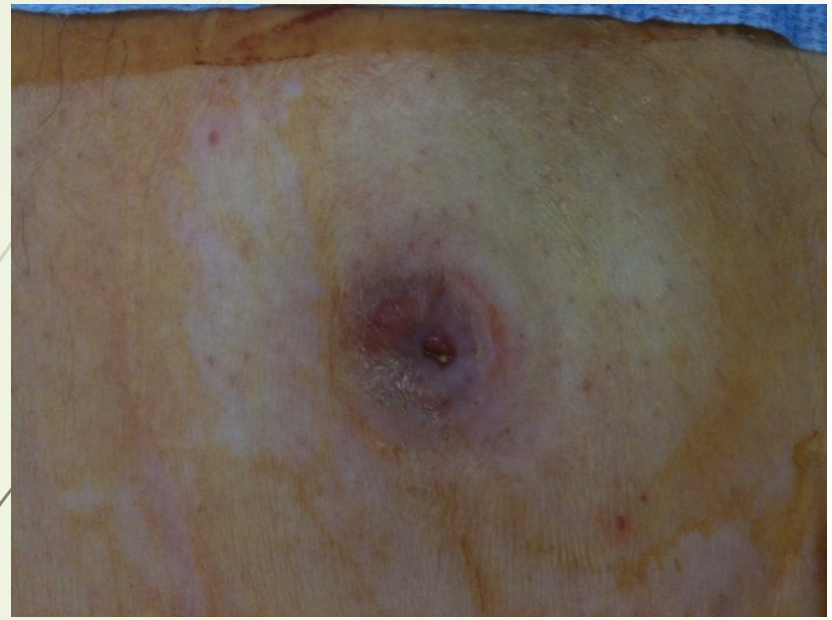
Stomal necrosis



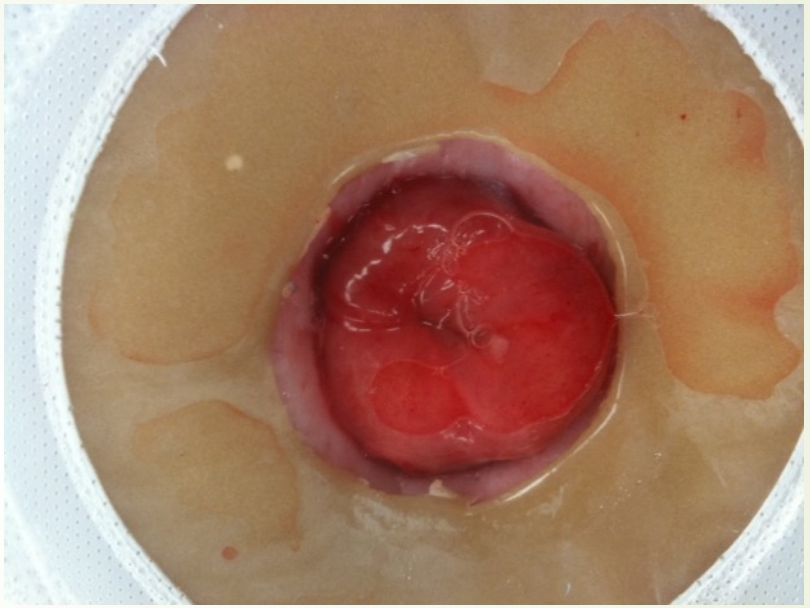
Stoma Necrosis

- Partial vs Entire stoma
- reoperation to avoid perforation/ peritonitis
- Partial ischemia usually managed conservatively-- gentle cleansing, allows sloughing off

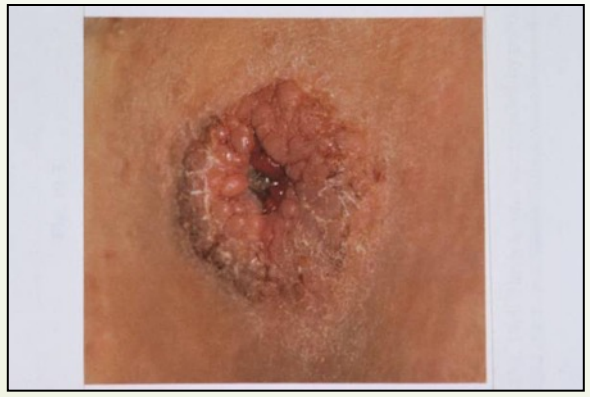
Stomal Stricture



Stricture



Revised locally



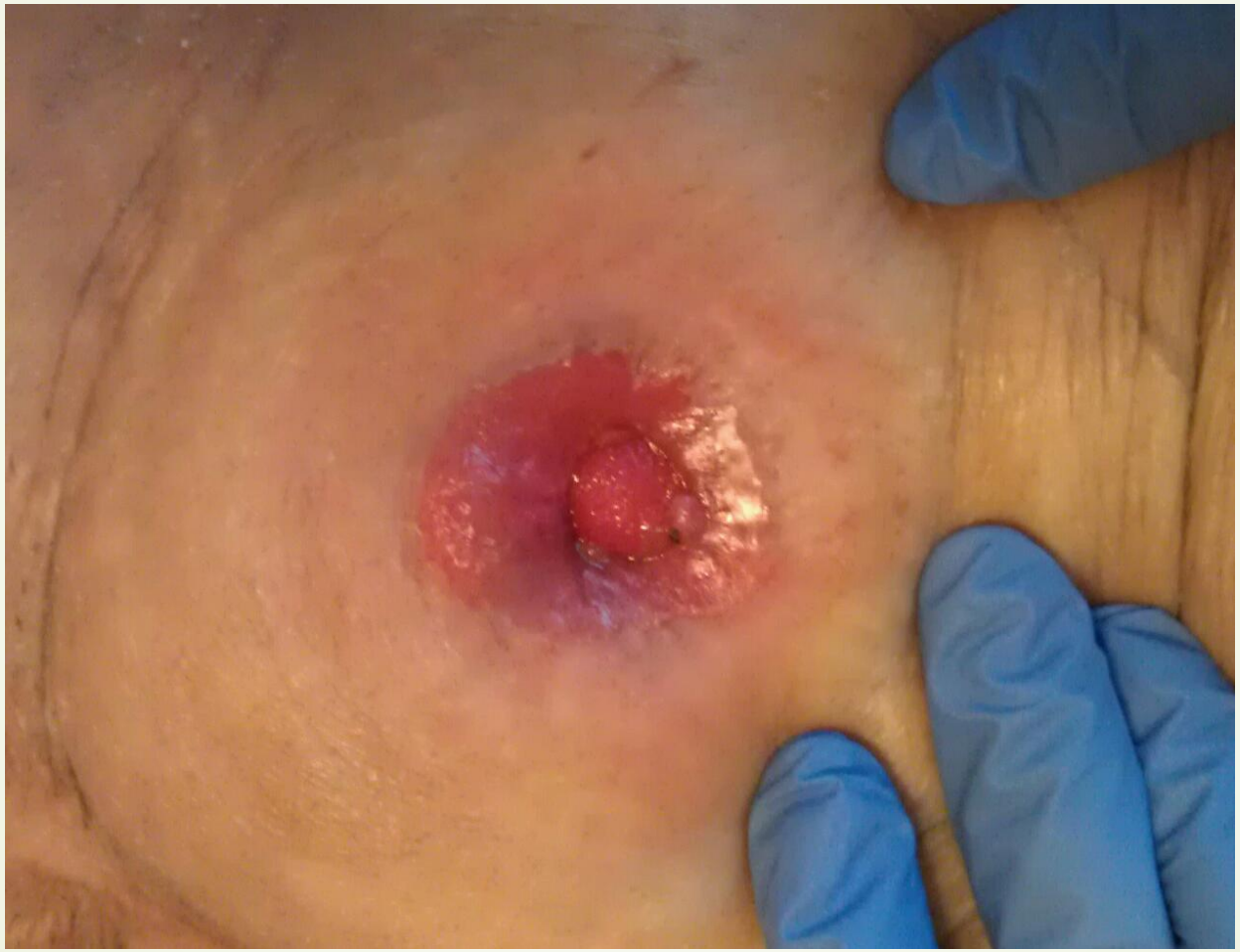
Stricture/
Hypertrophic skin
changes due to irritation

Stenosis/stricture

Causes: alakaline urine, radiation tissue damage, stomal necrosis, mucocutaneous separation, ischemia

Short term management: dilation, stool softeners, irrigation, urinary stents

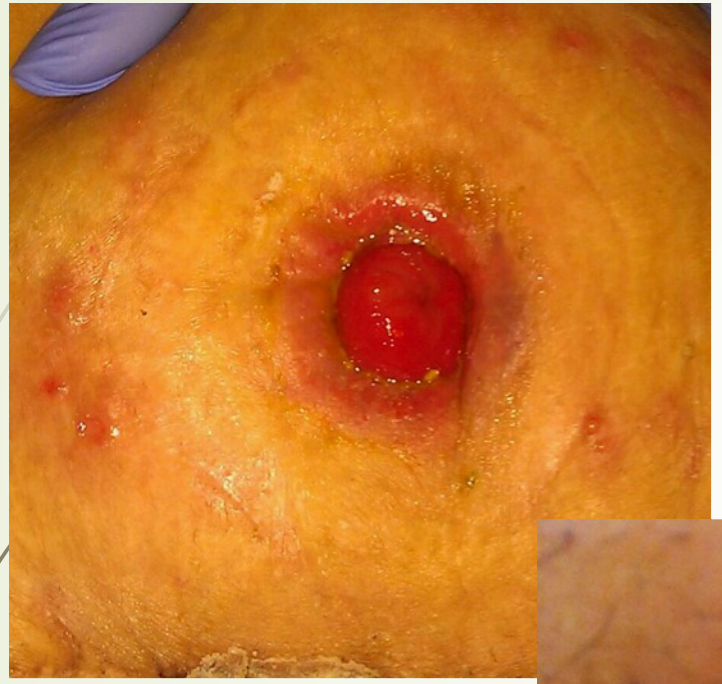
Retraction

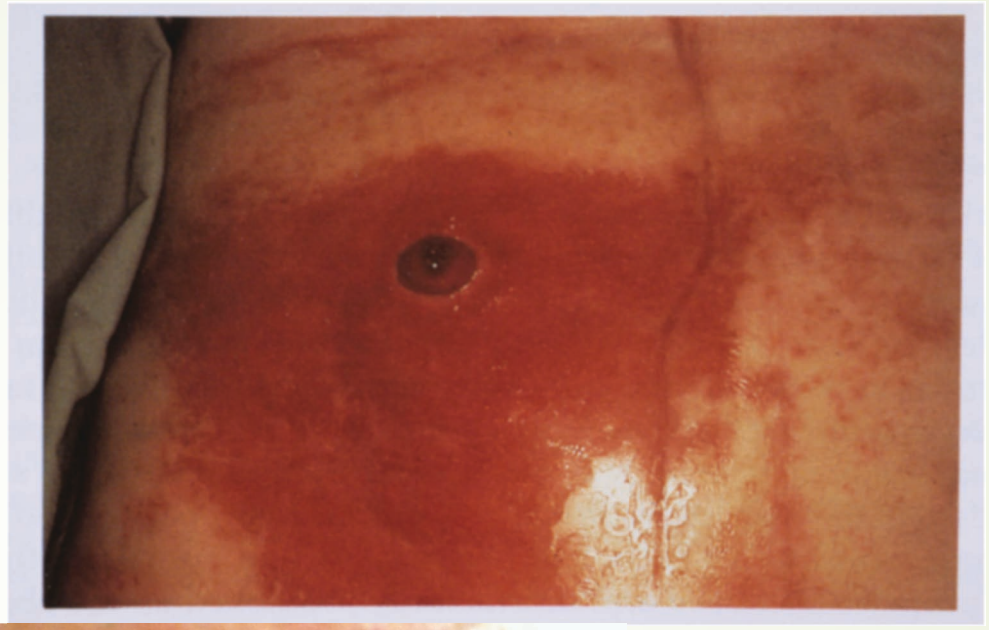


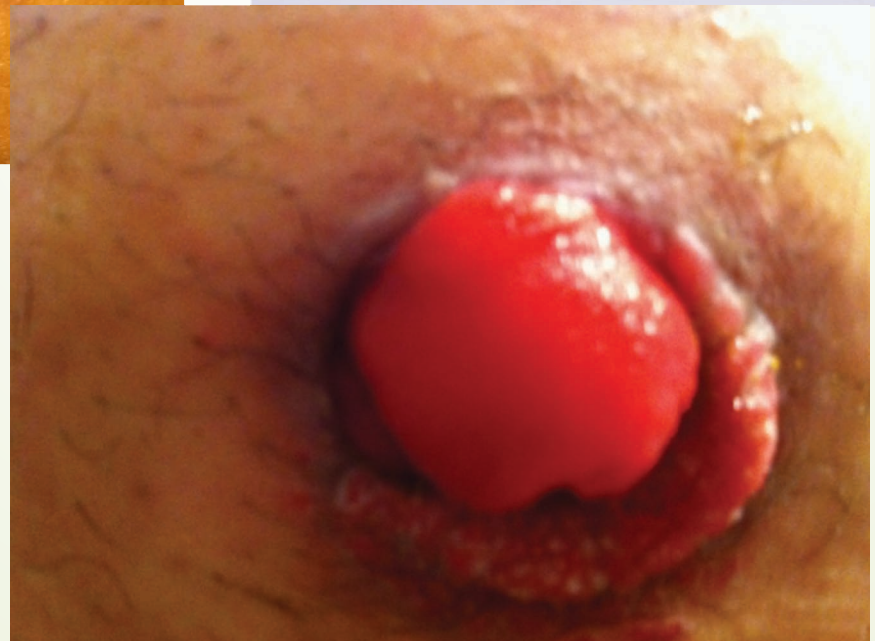
Retraction
Non-surgical management

- Convex appliance
- Belt
- Paste and rings
- May eventually need reoperation if not responding to conservative treatment

Skin Irritation/Appliance Leakage







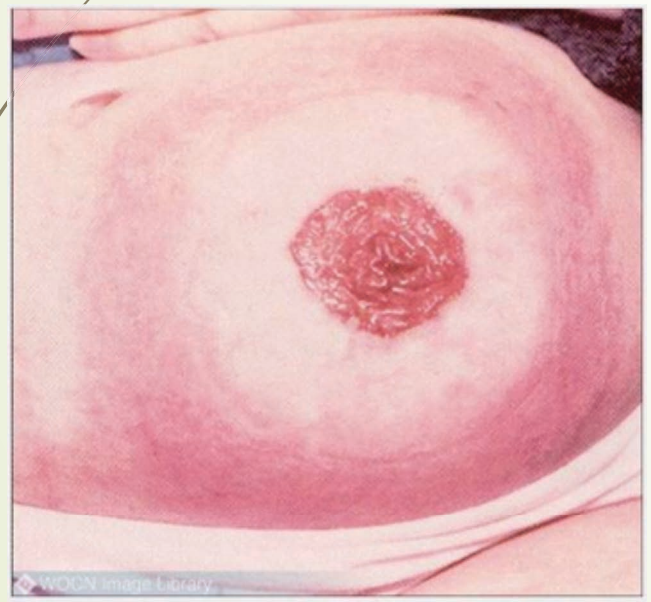
Excoriation/Denuding/Erosion

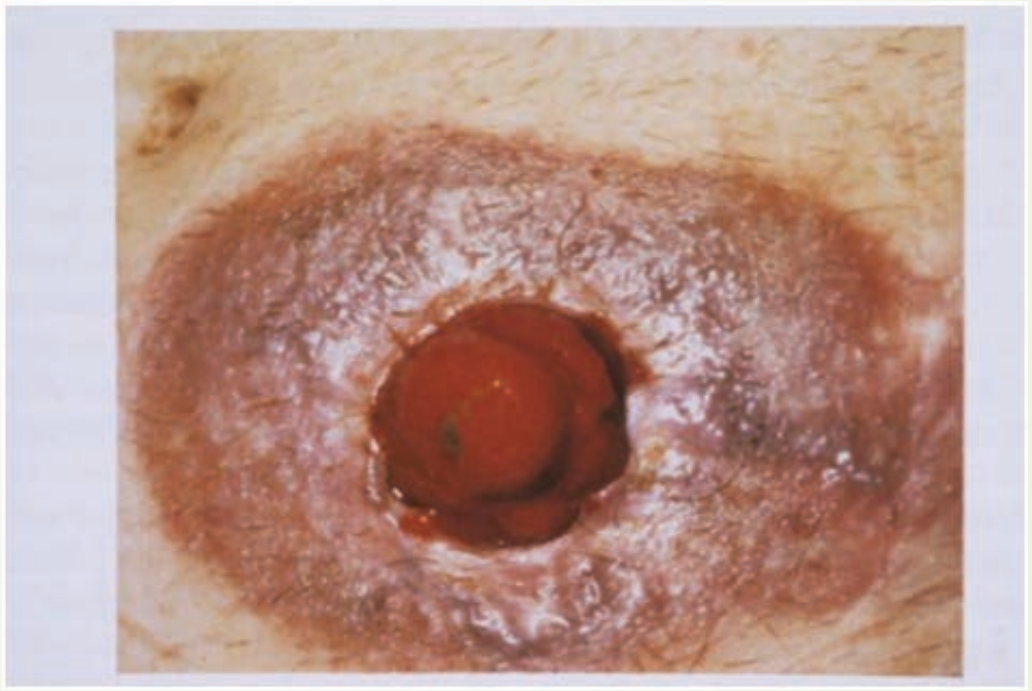
Eliminate the cause: refit, change more often, reduce the number of products used (keep it simple).

Water only for cleansing, use stoma powder and no-sting barrier film to protect and heal

Dermatitis Allergic vs Irritant

Look at the pattern of dermatitis-- is it at the tape border? Under the pectin portion?



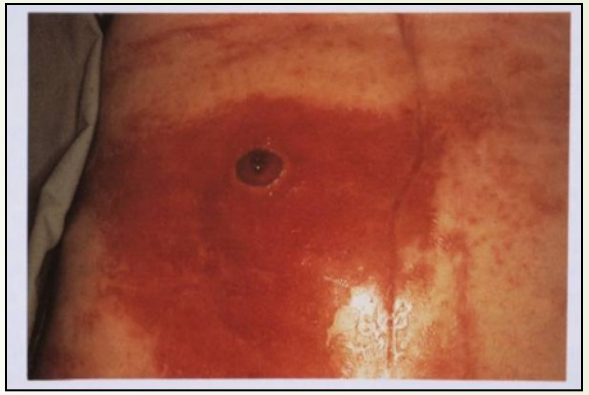


Allergic

- Try to identify the product and eliminate.
- Steroid creams/sprays
- Barrier Sheets
- Referral to Dermatology
- Non-adhesive pouching systems

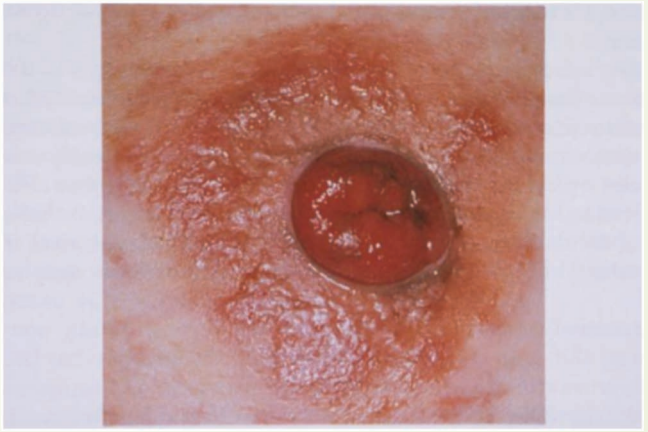
Irritant:

- Effluent
- Over cleansing
- Over use of skin products

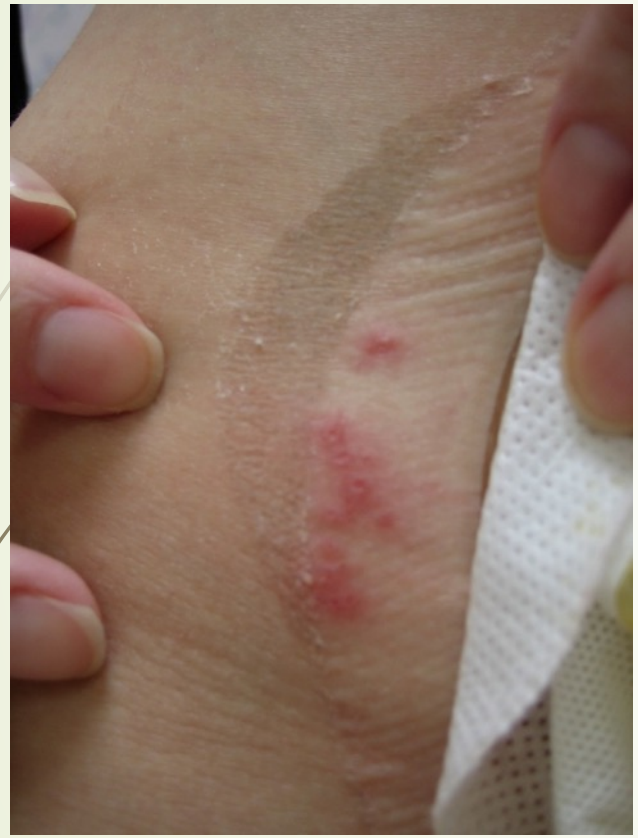


Treatment:

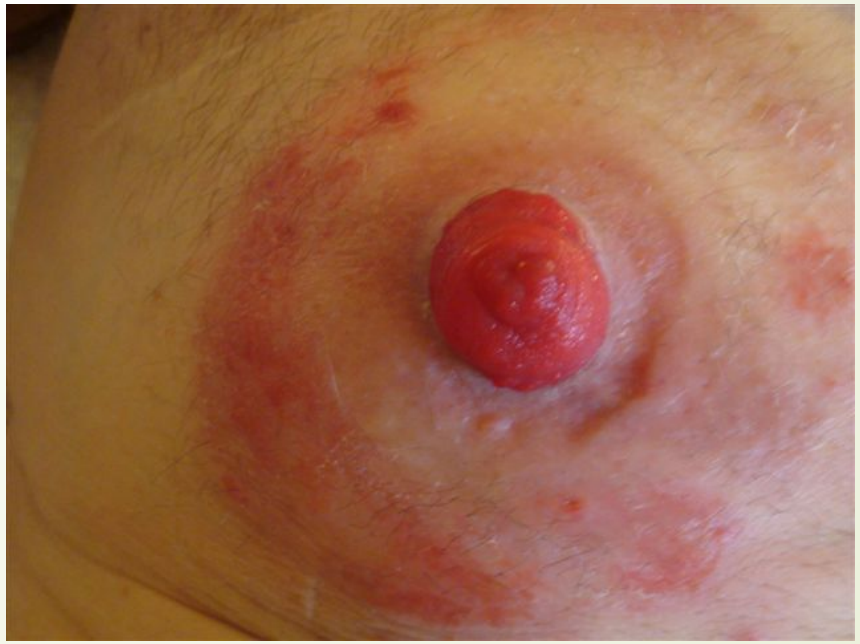
- Simplify
- Refit
- Crust Skin
- Skin barriers

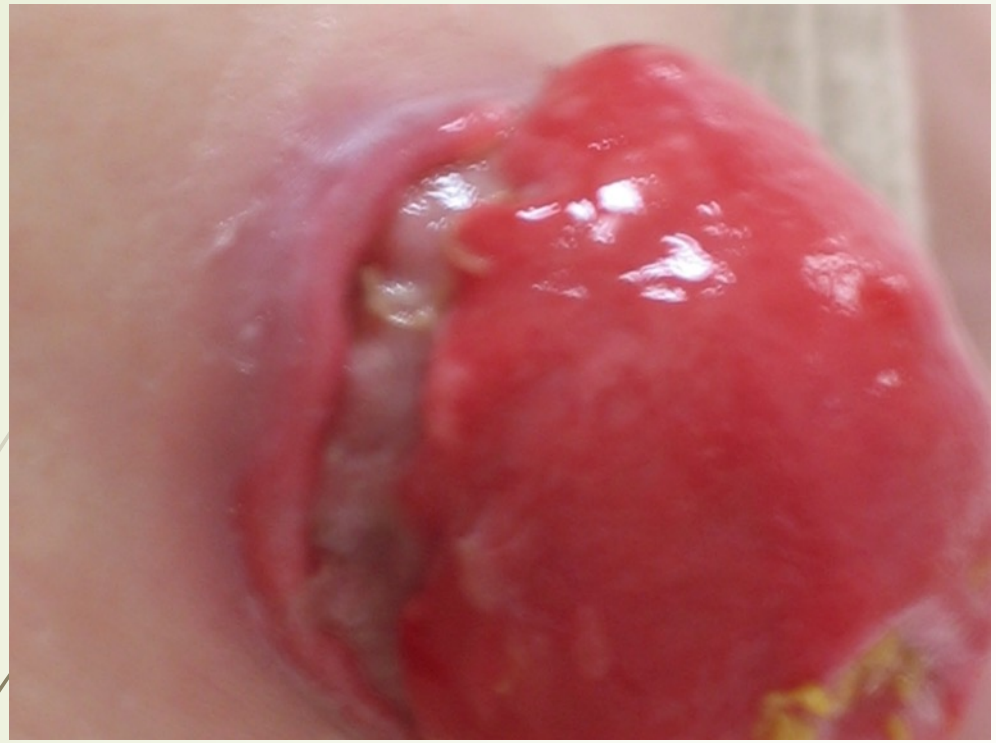


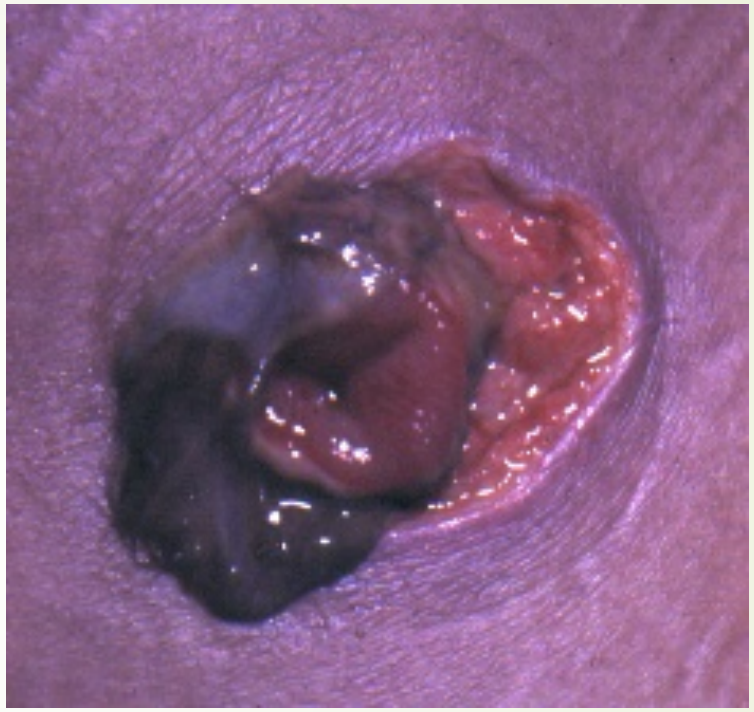
Fungal Infections



- Refit appliance
- Moisture control (cool hairdryer, pouch cover)
- Antifungal powder



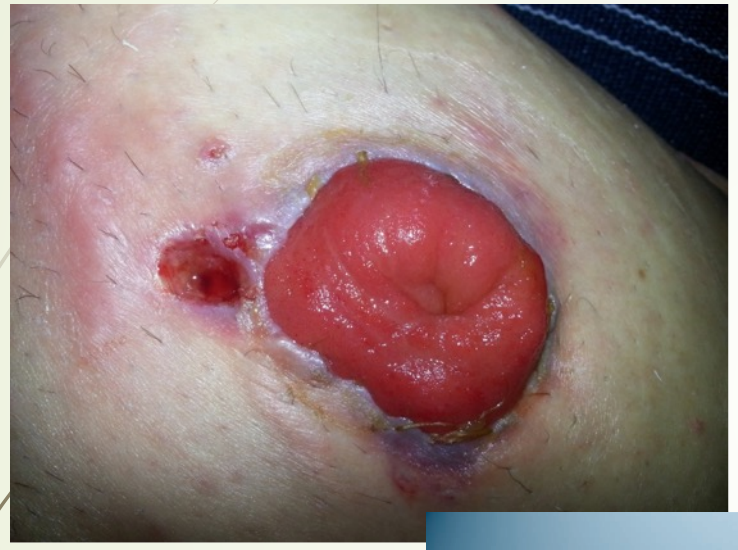


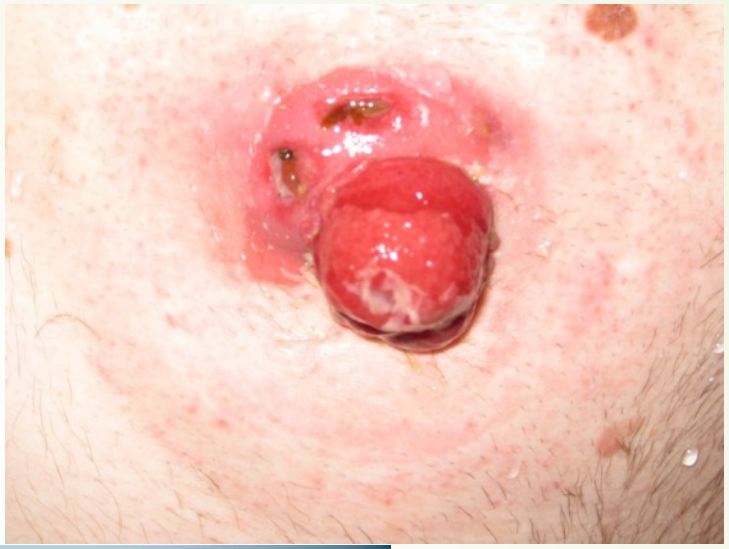


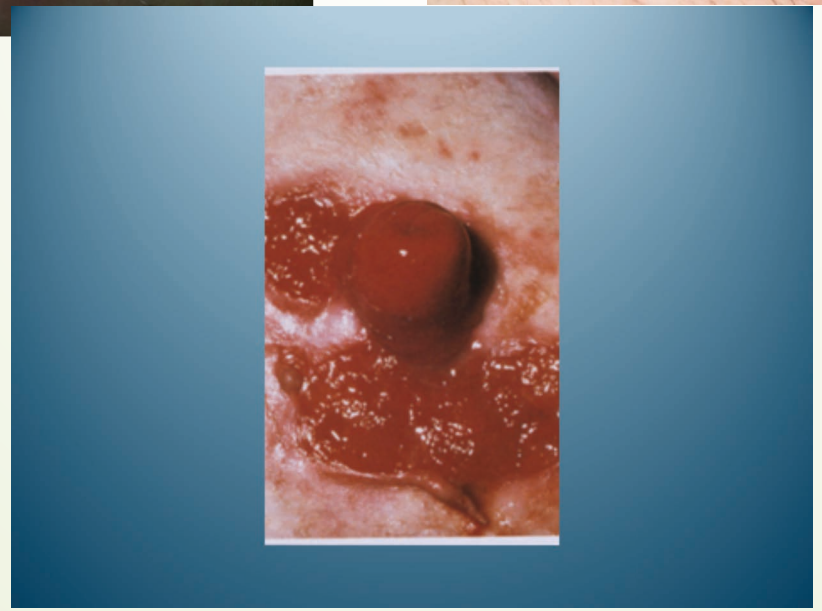
Mucocutaneous Skin Separation

If superficial gentle cleansing and filling the defect with stoma powder/paste/absorbent dressing. Usually will fill in with time.

Pyoderma vs fistula







Fistula

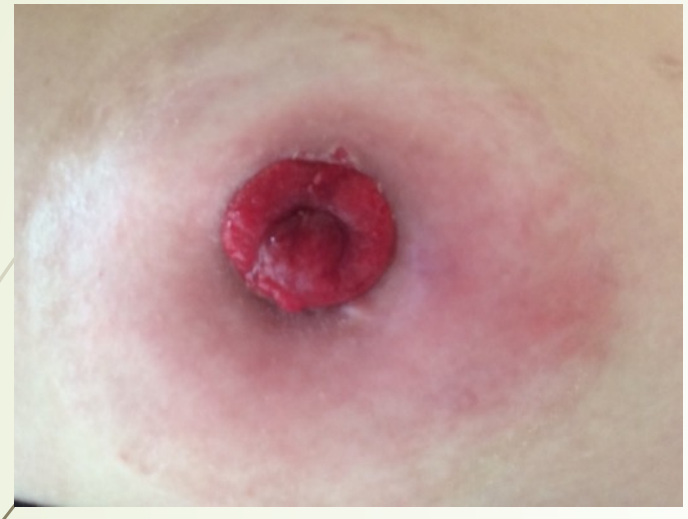
- Underlying cause?
  Pouch if large amount effluent
  May need to change pouch more often

Pyoderma Gangrenosa

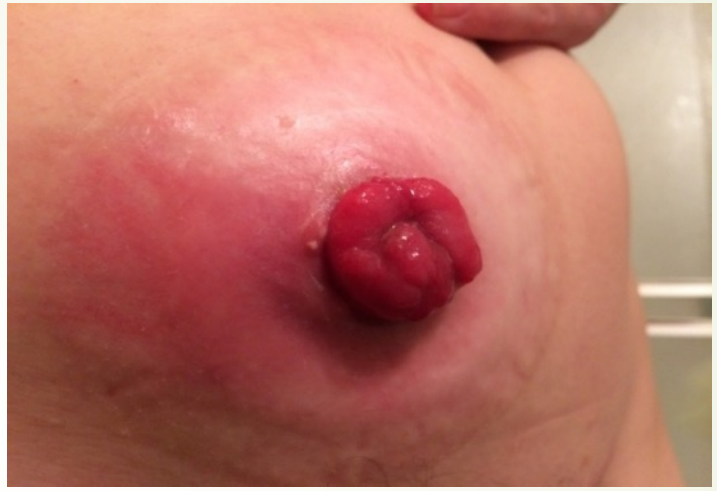
- Pain is out of proportion to visual
- Can have secondary bacterial infection
- Eliminate trauma: flat pouch, calcium alginate or other absorbant dressing.
- Steroid Cream, Steroid injections, topical tacrolimus
- Dermatology Referral

Progression to fistula

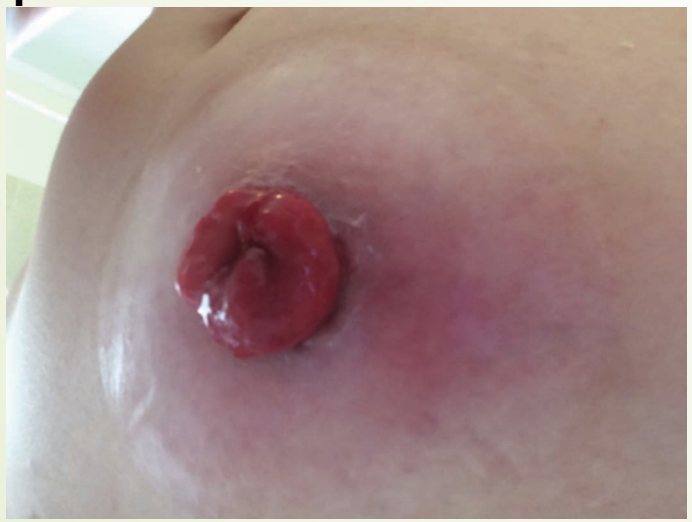
Cellulitis tx antibx

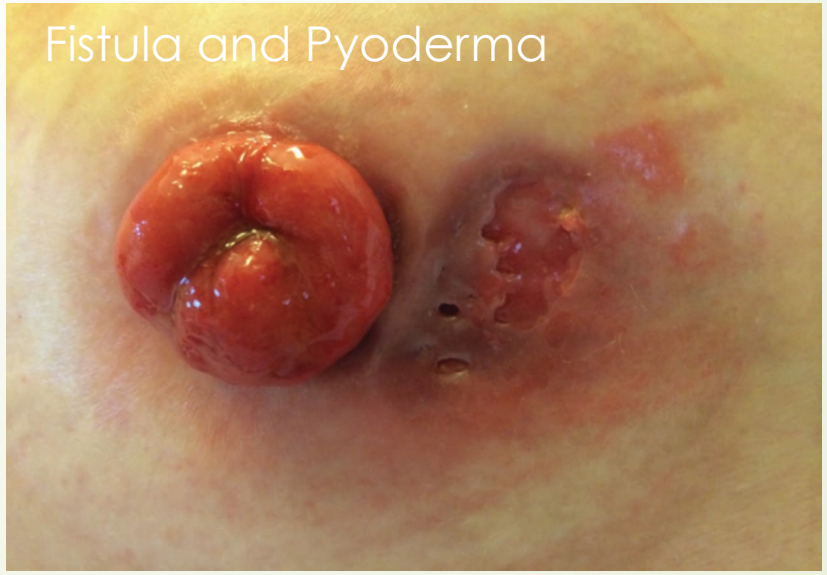


Cellulitis and pyoderma

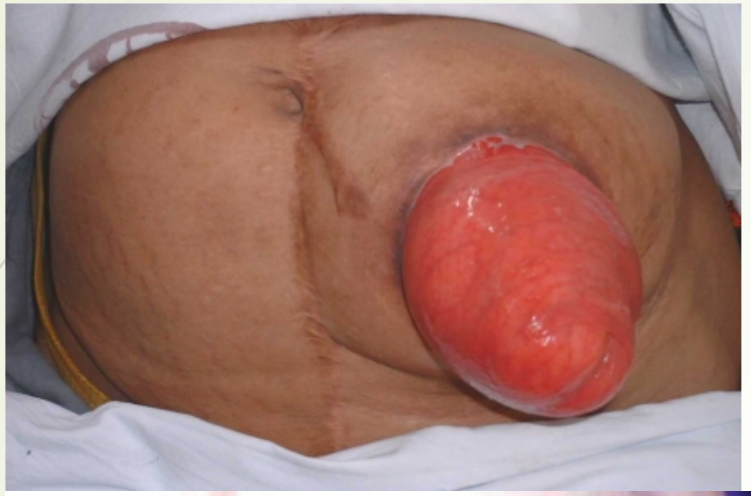


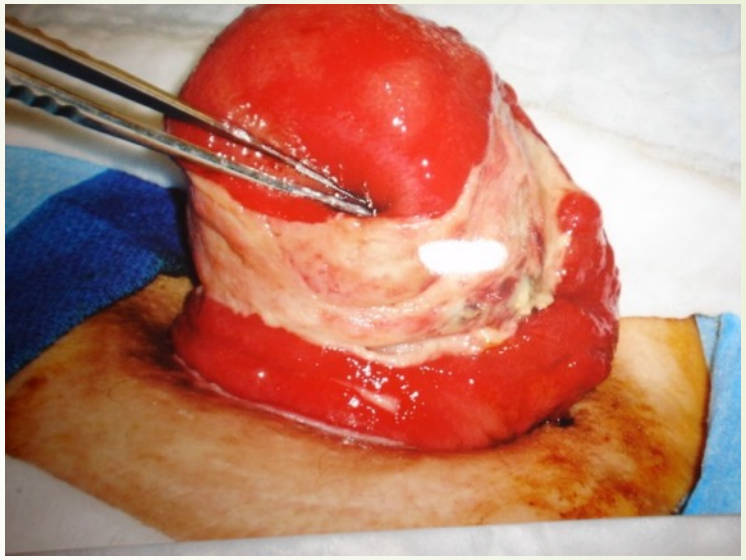
Improvement

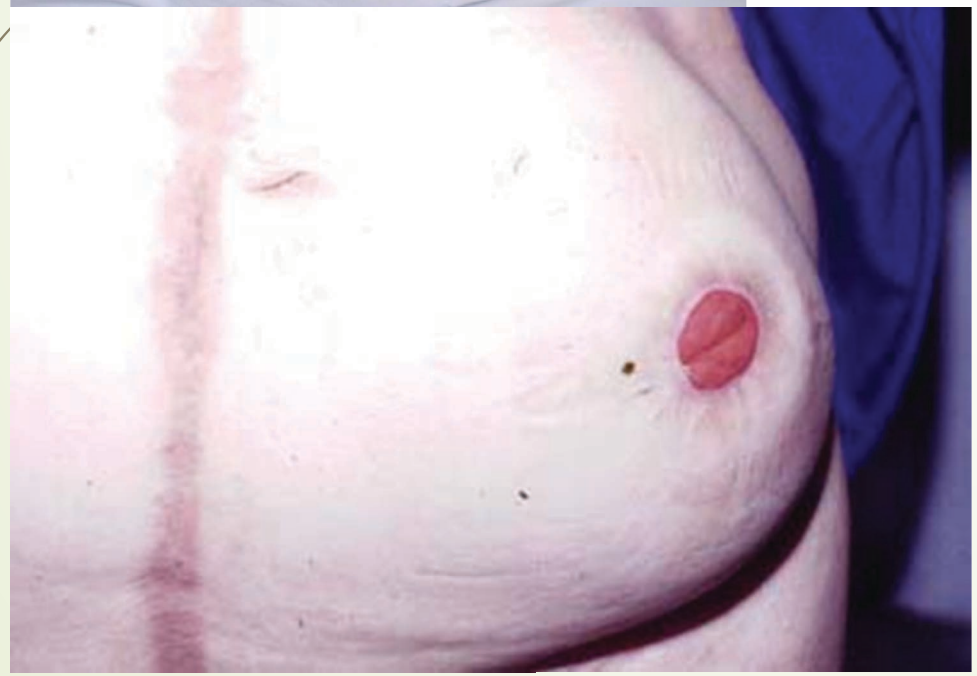


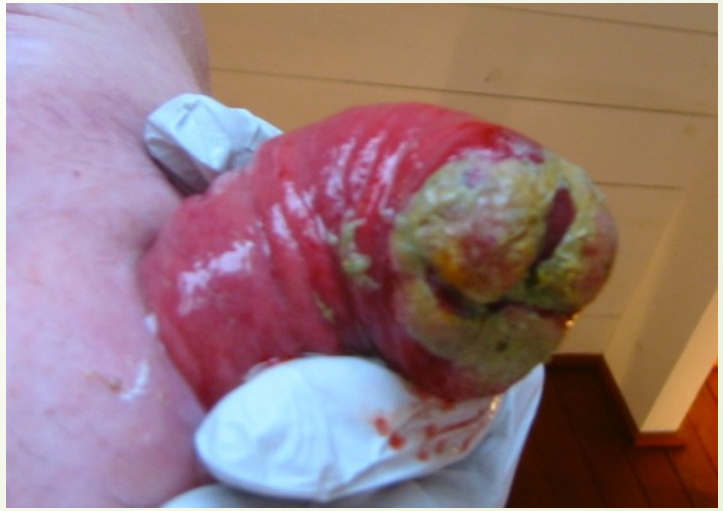


Prolapse and Hernia









Prolapse

If no ischemia or obstruction manage

Reduce stoma-- lay down, gentle pressure to reduce, Cold compresses, sometimes packing prolapse in sugar to remove edema can help reduce but can be associated with fluid shifts/electrolyte imbalance.

One piece/softer appliances--avoid trauma from ring of two piece appliance.

Prolapse belt or abdominal binder

Parastomal Hernia

If obstruction, incarceration, pain, unable to pouch then surgical intervention

First try to manage-- change pouching system, use of hernia support belts, prevention of progression of hernia.

Hernia and Prolapse Belts

What about eating?

- For the colostomy patient there are essentially no restrictions, but for the ileostomy patient it is important for some foods to be avoided early on to prevent an intestinal blockage
- Stringy, high fiber foods like celery, coconut, corn, coleslaw, the membranes on citrus fruits, peas, popcorn, spinach, dried fruits, nuts, pineapple, seeds, and fruit and vegetable skins
- Fish, eggs, beer, and carbonated beverages can cause excessive foul odor.
- Encourage your patients to eat at regular intervals, chew food well and drink adequate fluids. Avoid overeating and excessive weight gain.